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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/226,577	01/07/1999	JACK CHANEY	SAM1.0058	9866

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EXAMINER

CALLAHAN, PAUL E

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/226,577	Applicant(s) CHANEY, JACK	
	Examiner Paul Callahan	Art Unit 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8 and 10-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8 and 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>05212004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Claims 1, 3-8, and 10-14 are pending in this application and have been examined.

Response to Arguments

2. Applicant's arguments filed 5-21-2005 have been fully considered but they are not persuasive.

The Applicant argues that the Berson '685 reference represents non-analogous art to the instant invention and therefore its use in the rejections of the claims is inappropriate. The Examiner counters that Berson was used to teach the features associated with protection of a data signal from illicit use and therefore meets the standard posited by the Court in *In Re Oetiker*, 977 F.2d 1443, 24 USPQ2nd 1443 (Fed. Cir. 1992) where a particular art reference must be either in the field of the Applicant's endeavor, or, if not, then be reasonably pertinent to the particular problem with which the Applicant was concerned.

The Applicant asserts that the Berson reference fails to teach transmission of a scrambled signal and a data signal to a receiver. Yet a careful reading of Berson reveals that such is indeed taught by Berson by virtue of the step of Berson wherein encrypted data $E_i[M]$ and an encoded decryption key $X[D_i]$ are transmitted to printer module (fig. 1 item 28) which does constitute a receiver for the information.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate these features of Berson into the system of Girod. Including the frequency-spreading signal with the transmitted data of Berson would facilitate rapid recovery of the watermark signal. Girod discusses the motive for such a combination in col. 1 lines 50-60 where the need for rapid signal processing is discussed.

The Applicant asserts, "...if Applicant's claimed invention were in fact obvious, those skilled in the art would have modified the teachings of Girod to incorporate the teachings of Berson. The fact that neither reference has been modified to implement Applicant's claimed invention, despite its great advantages, indicates that Applicant's claimed invention is neither obvious or not taught by the prior art." The Applicant fails to offer any evidence in support of this assertion of great advantage to his invention such as commercial success, expression of surprise at the instant invention by those of ordinary skill in the art, or expressions of long felt need for a development such as the instant invention.

The Applicant's assertion that the combination of Girod and Berson fails to teach combining of the scrambled signal with a data signal as found in claim 3 is countered by reference to col. 9 of Berson.

The Applicant's assertion that the combination of Girod and Berson fails to teach descrambling the scrambled signal to recover the copy protected signal as found in claim 6 is countered by noting that such is taught by Girod in col. 5 lines 7-10 where reversal of the watermarking process is discussed.

The Applicant's assertion that the combination of Girod and Berson fails to teach reconversion of a recovered copy signal back into a coded signal using an inverse copy function as found in claim 6. Yet such is indeed taught by Berson in col. 5 line 49 through col. 6 line 17 where the recovered text data in col. 5 line 53-56 is reencrypted by a reverse of the decryption process. The Berson reference teaches the use of a private key to digitally sign data previously encrypted under a corresponding public key and decrypted with that private key under an RSA protocol as described in col. 1.

The Applicant's assertion that the combination of Girod and Berson fails to teach combining the encrypted data and other data into a combined signal for transmission as found in claim 11 is countered by noting that such is indeed taught by Berson as discussed supra where encrypted data $E_i[M]$ and an encoded decryption key $X[D_i]$ are transmitted associated with each other to printer module (fig. 1 item 28).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3-8, and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Girod et al. in view of Berson et al. (5742685).

In their abstract, Girod et al. teach watermarking a compressed signal. In figure 1, the lower input is a digital signal, which is compressed by element 10 (see lines 47-62 of column 3 and line 60 of column 4 through line 21 of column 5 for a description of figure 1), thereby reading on clause a) of the claims. Element 26 watermarks the compressed signal; the watermark is inserted using a frequency spreading signal, which meets applicant's data signal representing copy protection data, while the watermarking operations read on the copy protection function. In the abstract, Girod et al. say that encryption/decryption capabilities can be included but does not specify how or where. Claim 8 and figure 4 make it clear that encryption is applied' after compression and watermarking. Encryption is a type of scrambling and so clause c) is met. The reversal of these steps is implied by figures 1 and 2c. While Girod et al. specifically disclose decoding preceding removal of the watermark; these steps are interchangeable, as is understood from lines 7-10 of column 5. This is part of the benefit of Girod et al.'s watermarking method. As described at the top of column 9, removal of the watermark

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requires the sequence that was used to embed the watermark. Girod et al. do not indicate how the receiver acquires the sequence. In lines 9-12 of column 4, Berson et al. teach appending a decryption key to a cryptogram in order to facilitate recovery of the encrypted information. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to facilitate removal of the watermark in Girod et al. by including the frequency spreading signal with the transmitted data as taught by Berson et al.

The cited section of Berson et al renders claims 3 and 4 obvious. The elements of claims 5 and 6 are rendered obvious by the steps described by Girod et al.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following US Patent documents teach systems of data protection similar to that of the Applicant's invention.

Ogawa et al. 5,787,179

Murataini et al. 6,061,451

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul E. Callahan whose telephone number is (571) 272-3869. The examiner can normally be reached on M-F from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Andrew Caldwell, can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is: (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

2/2/05

Paul Callahan

Andrew Caldwell

**ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER**